



## Contents of *Aquatic Toxicology*, Volume 50

**VOL. 50 NOS. 1–2****AUGUST 2000****Research articles**

F.A. Atienzar, B. Cordi, M.E. Donkin, A.J. Evenden, A.N. Jha and M.H. Depledge (UK) Comparison of ultraviolet-induced genotoxicity detected by random amplified polymorphic DNA with chlorophyll fluorescence and growth in a marine macroalgae, <i>Palmaria palmata</i>	1
J.F. Klaverkamp, K. Wautier and C.L. Baron (Canada) A modified mercury saturation assay for measuring metallothionein	13
J.-M. Chen and J.-C. Chen (Republic of China) Study on the free amino acid levels in the hemolymph, gill, hepatopancreas and muscle of <i>Penaeus monodon</i> exposed to elevated ambient ammonia	27
M.V. Zakhartsev, V.P. Chelomin and N.N. Belcheva (Russia) The adaptation of mussels <i>Crenomytilus grayanus</i> to cadmium accumulation result in alterations in organization of microsomal enzyme-membrane complex (non-specific phosphatase)	39
Y. de Lafontaine, F. Gagné, C. Blaise, G. Costan, P. Gagnon and H.M. Chan (Canada) Biomarkers in zebra mussels ( <i>Dreissena polymorpha</i> ) for the assessment and monitoring of water quality of the St Lawrence River (Canada)	51
J.-C. Chen and S.-Y. Cheng (Republic of China) Recovery of <i>Penaeus monodon</i> from functional anaemia after exposure to sublethal concentration of nitrite at different pH levels	73
C. Baier-Anderson and R.S. Anderson (USA) Suppression of superoxide production by chlorothalonil in striped bass ( <i>Morone saxatilis</i> ) macrophages: the role of cellular sulfhydryls and oxidative stress	85
M. Grosell and F.B. Jensen (Denmark) Uptake and effects of nitrite in the marine teleost fish <i>Platichthys flesus</i>	97
S. Paris-Palacios, S. Biagianni-Risbourg and G. Vernet (France) Biochemical and (ultra)structural hepatic perturbations of <i>Brachydanio rerio</i> (Teleostei, Cyprinidae) exposed to two sublethal concentrations of copper sulfate	109
L. Tessier, J.L. Boisvert, L.B.-M. Vought and J.O. Lacoursière (Canada, Sweden) Anomalies on capture nets of <i>Hydropsyche slossonae</i> larvae (Trichoptera; Hydropsychidae), a potential indicator of chronic toxicity of malathion (organophosphate insecticide)	125
D.L. Straus, D. Schlenk and J.E. Chambers (USA) Hepatic microsomal desulfuration and dearylation of chlorpyrifos and parathion in fingerling channel catfish: lack of effect from Aroclor 1254	141

**VOL. 50 NO. 3****SEPTEMBER 2000****Research articles**

<i>G.R. MacFarlane, D.J. Booth and K.R. Brown (Australia)</i>	
The Semaphore crab, <i>Helocecius cordiformis</i> : bio-indication potential for heavy metals in estuarine systems	153
<i>C. Minier, V. Borghi, M.N. Moore and C. Porte (France, Spain, UK)</i>	
Seasonal variation of MXR and stress proteins in the common mussel, <i>Mytilus galloprovincialis</i>	167
<i>M.S. Stoelting and R.S. Tjeerdenma (USA)</i>	
Glutathione-dependent biotransformation of 1-chloro-2,4-dinitrobenzene in arterial and venous blood of the striped bass ( <i>Morone saxitilis</i> )	177
<i>P.S. Rainbow, C. Amiard-Triquet, J.C. Amiard, B.D. Smith and W.J. Langston (UK, France)</i>	
Observations on the interaction of zinc and cadmium uptake rates in crustaceans (amphipods and crabs) from coastal sites in UK and France differentially enriched with trace metals	189
<i>Y. Wang and P.J. Walsh (USA)</i>	
High ammonia tolerance in fishes of the family Batrachoididae (Toadfish and Midshipmen)	205
<i>B. Pawlik-Skowrońska (Poland)</i>	
Relationships between acid-soluble thiol peptides and accumulated Pb in the green alga <i>Stichococcus bacillaris</i>	221
<i>J.C. McGeer, C. Szebedinszky, D.G. McDonald and C.M. Wood. (Canada)</i>	
Effects of chronic sublethal exposure to waterborne Cu, Cd or Zn in rainbow trout. 1: Iono-regulatory disturbance and metabolic costs	231
<i>J.C. McGeer, C. Szebedinszky, D.G. McDonald and C.M. Wood (Canada)</i>	
Effects of chronic sublethal exposure to waterborne Cu, Cd or Zn in rainbow trout 2: tissue specific metal accumulation	245
<i>M.G. Barron and S. Albeke (USA)</i>	
Calcium control of zinc uptake in rainbow trout	257
<i>J.H. McCann, B.M. Greenberg and K.R. Solomon (Canada)</i>	
The effect of creosote on the growth of an axenic culture of <i>Myriophyllum spicatum</i> L.	265
<i>J.H. McCann and K.R. Solomon (Canada)</i>	
The effect of creosote on membrane ion leakage in <i>Myriophyllum spicatum</i> L.	275

**VOL. 50 NO. 4****OCTOBER 2000****Research articles**

<i>G.L. Walter, P.D. Jones and J.P. Giesy (USA)</i>	
Pathologic alterations in adult rainbow trout, <i>Oncorhynchus mykiss</i> , exposed to dietary 2,3,7,8-tetrachlorodibenzo-p-dioxin	287
<i>P.A. Olsvik, P. Gundersen, R.A. Andersen and K.E. Zachariassen (Norway)</i>	
Metal accumulation and metallothionein in two populations of brown trout, <i>Salmo trutta</i> , exposed to different natural water environments during a run-off episode	301
<i>H.-I. Kwak, M.-H. Lee and M.-H. Cho (Korea)</i>	
Interrelationship of apoptosis, mutation, and cell proliferation in N-methyl-N'-nitro-N-nitrosoguanidine (MNNG)-induced medaka carcinogenesis model	317

<i>P. Saravana Bhavan and P. Geraldine (India)</i>	
Histopathology of the hepatopancreas and gills of the prawn <i>Macrobrachium malcolmsonii</i> exposed to endosulfan	331
<i>D.E. Conners and A.H. Ringwood (USA)</i>	
Effects of glutathione depletion on copper cytotoxicity in oysters ( <i>Crassostrea virginica</i> )	341
<i>F. Regoli (Italy)</i>	
Total oxyradical scavenging capacity (TOSC) in polluted and translocated mussels: a predictive biomarker of oxidative stress	351
<i>S. Scholz and H.O. Gutzeit (Germany)</i>	
17- $\alpha$ -ethinylestradiol affects reproduction, sexual differentiation and aromatase gene expression of the medaka ( <i>Oryzias latipes</i> )	363
<i>J.J. Schlezinger and J.J. Stegeman (USA)</i>	
Induction of cytochrome P450 1A in the American Eel by model halogenated and non-halogenated aryl hydrocarbon receptor agonists	375
<i>G.C.M. Grinwis, H.T. Besselink, E.J. van den Brandhof, A.S. Bulder, M.Y. Engelsma, R.V. Kuiper, P.W. Wester, M.A. Vaal, A.D. Vethaak and J.G. Vos (The Netherlands)</i>	
Toxicity of TCDD in European flounder ( <i>Platichthys flesus</i> ) with emphasis on histopathology and cytochrome P450 1A induction in several organ systems	387
<i>A. van Schanke, J.P. Boon, Y. Aardoom, A. van Leest, F.J. van Schooten, L. Maas, M. van den Berg and J.M. Everaarts (The Netherlands)</i>	
Effect of a dioxin-like PCB (CB 126) on the biotransformation and genotoxicity of benzo[a]pyrene in the marine flatfish dab ( <i>Limanda limanda</i> )	403
Author index of <i>Aquatic Toxicology</i> , Volume 50	417
Keyword index of <i>Aquatic Toxicology</i> , Volume 50	425
Contents of <i>Aquatic Toxicology</i> , Volume 50	431